

Abstract

Title of thesis: THE ASSOCIATION OF SOCIAL ANHEDONIA WITH
 ROMANTIC RELATIONSHIP PROCESSES

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Social anhedonia is a deficiency in the capacity to experience pleasure from social interactions. This study examined the implications of social anhedonia for romantic relationship functioning, including the association of social anhedonia with sentiments towards romantic partners that are central to relationship functioning (satisfaction, commitment, regard, and care), analogous perceptions of the partner's sentiments, hostile behavior during relationship conflict, and perception of the partner's hostile behavior. Data were collected from 281 participants who were involved in romantic relationships. Support was found for social anhedonia's hypothesized negative association with satisfaction, regard, and care, as well as all four perceived partner sentiments. These associations were independent of attachment anxiety and avoidance. Additionally, attachment avoidance mediated social anhedonia's relationship with commitment. However, no support was found for social anhedonia's hypothesized positive association with actual and perceived partner hostile behavior. Results suggest that social anhedonia may undermine the functioning of interpersonal relationships.

THE ASSOCIATION OF SOCIAL ANHEDONIA WITH ROMANTIC
RELATIONSHIP PROCESSES

by

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Chapter I: Introduction

Social Anhedonia, a trait associated with both schizophrenia and depression, is a discernable deficiency in the capacity to experience pleasure from social interactions (Blanchard, Horan, & Brown, 2001; Meehl, 1962; Meehl, 1975; Pizzagalli, 2014), which negatively affects relationships (Brown, Silvia, Myin-Germeys, & Kwapil, 2007; Mishlove & Chapman, 1985). Given that intimate relationships are vital to coping with stress (Brown & Harris, 1978), decreasing likelihood of depression (Brown & Harris, 1978; Coyne & Downey, 1991), and increasing subjective well-being (Dush & Amato, 2005), it is important to understand how social anhedonia is associated with romantic relationship processes.

The aim of the current research is to delineate the relationship between social anhedonia and relationship processes and outcomes. First, I will define social anhedonia, situating it in the psychopathology literature and describing its known effects on psychological functioning. Subsequently, I will review the literature on the interpersonal outcomes being examined in the current research, including actual and perceived sentiments and behaviors towards partners, their necessity for relational health, and their possible intersection with social anhedonia. Then, I will differentiate social anhedonia from attachment avoidance, a frequently studied predictor of interpersonal functioning that may be seen as conceptually similar to social anhedonia. Then, I will present the hypotheses to be tested.

Social Anhedonia

Social anhedonia and psychopathology. Ever since Meehl's *Schizotaxia, Schizotypy, Schizophrenia* (1962) addressed its importance as a core feature of schizophrenia, social anhedonia has been increasingly researched within the context of that disorder (Blanchard, Mueser, & Bellack, 1998; Chapman, Chapman, Kwapil, Eckblad, & Zinser, 1994; Kwapil, 1998; Kwapil, Miller, Zinser, Chapman, & Chapman, 1997; Mishlove & Chapman, 1985) as well as other personality disorders (Camisa et al., 2005; Lyons et al., 1995). Additionally, it has been studied as a more transient symptom of depression (Berenbaum & Oltmanns, 1992; Berlin, Givry-Steiner, Lecrubier, & Puech, 1998; Blanchard, Horan, & Brown, 2001; Katsanis, Iacono, Beiser, & Lacey, 1992; Meehl, 1975; Pizzagalli, 2014) that tends to diminish whenever the depression diminishes.

This research suggests that social anhedonia has a significant and negative impact on everyday individual functioning. Not only is it associated with significantly lower levels of well-being and positive affect, but it is also associated with higher levels of anxiety, worry, irritability, and negative affect (Blanchard, Mueser, & Bellack, 1998; Brown et al., 2007).

Social anhedonia and relationships. Most relevant to the current research, social anhedonia is also negatively related to social functioning (Blanchard, Mueser, & Bellack, 1998). Social anhedonics generally have a lower need to belong, prefer solitude, and spend greater amounts of time alone than do non-social anhedonics (Brown et al., 2007). Additionally, social anhedonics do not desire to pursue or engage in social interactions, including dating, as much as non-social anhedonics, resulting in their having fewer social

interactions, fewer peer relationships, less actual and perceived social support, and a lack of intimate friendships (Blanchard, Collins, Aghevi, Leung, & Cohen, 2011; Brown et al., 2007; Horan, Brown, & Blanchard, 2007; Kwapil, 1998; Mishlove & Chapman, 1985). They also were found to be more likely to have never been married and are less likely to have dated someone recently than control groups (Kwapil, 1998; Mishlove & Chapman, 1985).

Social anhedonics who are engaged in interpersonal relationships still do not feel very rewarded through them. They feel less satisfied with the social support they receive and report lower relationship quality than those low in social anhedonia (Horan, Brown, & Blanchard, 2007; Kwapil, 1998; Mishlove & Chapman, 1985). Social anhedonia is also associated with worse familial relationships, which include less family cohesion and support, and greater family conflict (Blanchard et al., 2011; Mishlove & Chapman, 1985).

Social anhedonia and relationships in non-clinical samples. As has been demonstrated, social anhedonia is negatively and substantially related to relational functioning in peer, familial, and romantic relationships. However, there is a dearth of research on its association with the quality of romantic relationships in non-clinical samples (Brown et al., 2007). Three studies have used non-clinical samples to highlight the relationship between social anhedonia and attachment orientations, which are often examined as predictors of romantic relationship functioning (Berry, Band, Corcoran, Barrowclough, & Wearden, 2007; Berry, Wearden, Barrowclough, & Liversidge, 2006; Troisi, Alcini, Coviello, Croce Nanni, & Siracusano, 2010). All three studies suggested a positive association between social anhedonia and avoidant attachment (i.e., general

discomfort with intimacy). These findings suggest that social anhedonia should be relevant to romantic relationship functioning in non-clinical samples. However, prior research has not examined whether social anhedonia undermines important interpersonal processes in romantic relationships, such as care, commitment, and conflict, nor has prior research examined whether social anhedonia is uniquely associated with relationships above and beyond the associations of attachment insecurity.

Romantic Relationships

It is important to understand the associations of social anhedonia with romantic relationships given the importance of romantic relationships for psychological functioning. Involvement in intimate, romantic relationships has been associated with an increased ability to cope with stress. For example, Brown & Harris (1978) asserted that depression in the face of chronic stressors is more likely in the absence of intimate, romantic relationships. Additionally, Kessler and Essex (1982) showed that despite married people experiencing the same economic, social, housework-related, and parental stressors as non-married people, married people exhibited higher levels of mastery and self-esteem, and reported more affiliative and intimate relationships. In their review of social factors and psychopathology, Coyne and Downey (1991) also concluded that intimacy has direct and buffering effects on someone's probability of experiencing depression. Specifically, they noted that the quality of spousal relationships significantly affects likelihood of receiving a diagnosis for depression.

In addition to increasing people's abilities to cope with stress, healthy romantic relationships have also been shown to increase well-being. Recipients of support and partner responsiveness within intimate relationships are able to flourish due to or despite

challenging circumstances, and thrive, exceeding their prior levels of functioning (Feeney & Collins, 2015). They flourish because such relationships provide them with emotional aid in response to stressful events, assist them with overcoming adversity, help them reframe adversities as opportunities for positive change, encourage them to seize opportunities, and give them the self-confidence to pursue their goals. Resultantly, these recipients increase in social, psychological, and physical well-being. Additionally, married people report the highest levels of subjective well being over cohabitating, dating, and single people (Dush & Amato, 2005). Complementarily, individuals in healthy marriages experience more life satisfaction, lower ambulatory blood pressure, lower stress levels, and lower levels of depression than their single or unhappily married counterparts (Holt-Lunstad, Birmingham, & Jones, 2008). Hence, it is important to understand if social anhedonia impacts the functioning of these relationships. Below I describe hypotheses regarding the associations of social anhedonia with people's sentiments toward their romantic partners, behaviors toward their partners, and perceptions of their relationships.

Associations of Social Anhedonia with Sentiments and Behaviors Towards Partners

Satisfaction. Relationship satisfaction is commonly used as an indicator of relationship quality. Satisfaction figures prominently in two influential theoretical perspectives on interpersonal relationships – the investment model (Rusbult, 1980) and interdependence theory (Thibaut & Kelley, 1959). According to these perspectives, people are satisfied in their relationships to the extent that their outcomes (i.e., rewards and costs) are more positive than the standards they use to evaluate relationships

(Rusbult, 1980). Rusbult (1980) discovered that, indeed, as relationship-related rewards increased and costs decreased, satisfaction increased.

Given that social anhedonia is characterized by a decreased sense of reward during social interaction (Brown et al., 2007), social anhedonics may have difficulty experiencing the rewarding aspects of their romantic relationships. Insofar as satisfaction is dependent on perceptions of rewards, social anhedonia should be associated with lower levels of relationship satisfaction.

H₁: Social anhedonia is negatively associated with relationship satisfaction.

Commitment. Commitment involves the intent for a relationship to persist, a long-term orientation to the relationship, and feelings of psychological attachment to the relationship (Rusbult & Buunk, 1993). Commitment has far-reaching effects on relational functioning. It predicts efforts to maintain the relationship (Rusbult, 1983), such as constructive reactions to conflict (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991; Wieselquist, Rusbult, Foster, & Agnew, 1999) and willingness to sacrifice personal goals to maintain the relationship (Etcheverry & Le, 2005; Van Lange et al., 1997). It is also strongly tied to relationship persistence (Etcheverry & Le, 2005).

As described above, people who are high on social anhedonia likely experience their relationships as less satisfying. Given the strong effects of satisfaction on commitment (Le & Agnew, 2003; Rusbult, 1980; Rusbult & Buunk, 1993), this reduced satisfaction should, in turn, reduce their commitment. Moreover, given that social anhedonics are less motivated to pursue social relationships (Berry et al., 2006; Berry et al., 2007; Brown et al., 2007; Mishlove & Chapman, 1985), and given that commitment

involves a motivation to maintain relationships (Rusbult & Buunk, 1993), social anhedonia may be directly associated with reduced commitment.

H₂: Social anhedonia is negatively associated with commitment.

Regard. Having positive regard for a relationship partner, including positive affect toward the partner and positive evaluations of the partner, is vital to relational well-being. People who hold their partner in positive regard are motivated to maintain and enhance their relationships (Murray, Holmes, & Griffin, 1996). Furthermore, holding positive regard for a partner predicts improvements in both partners' relationship quality over time (Murray, Holmes, & Griffin, 1996). Regard is also important because it, in part, determines approach and avoidance. In general, people approach and want to bond with those who they highly regard, and want to avoid those for whom they have low regard (Byrne, 1997; Clark & Lemay, 2010). In addition, positive regard for a partner is often communicated to that partner, leading the partner to feel more accepted and satisfied (see Murray, Holmes, & Griffin, 2000).

Social anhedonia is associated with lower levels of positive affect, higher levels of negative affect, and higher levels of irritability (Blanchard, Mueser, & Bellack, 1998; Brown et al., 2007), as well as a compromised ability to detect rewarding aspects of social interaction. Thus, people who are high in social anhedonia may be less likely to detect or value their partners' positive qualities than those who are low on social anhedonia. Resultantly, social anhedonics are likely to have more negative regard for their partners.

H₃: Social anhedonia is negatively related to regard for the partner.

Care. Care, or the motivation to respond supportively to one's partner's needs, benefits relational functioning in many important ways (Clark & Lemay, 2010). Responsive caregiving is associated with having more satisfying and intimate relationships (Reis, Clark, & Holmes, 2004). Likewise, goals to provide care (i.e., compassionate goals) are associated with increased feelings of intimacy, trust, and social support, and with decreased levels of conflict (Crocker & Canevello, 2008).

Antecedents of care-related constructs may correlate negatively with social anhedonia, causing social anhedonics to care less for their partners. Two antecedents are commitment and the desire to form close, communal bonds (Clark, Oullette, Powell, & Milberg, 1987; Crocker & Canevello, 2008), both of which should be reduced for social anhedonics. A third antecedent is empathy, which is driven by valuing someone's welfare (Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007). Because those who are high on social anhedonia experience reduced pleasure from social interactions and greater desire to maintain distance between themselves and others (Brown et al., 2007), they may value someone's welfare less so than non-social anhedonics. Thus, they may experience less empathy towards their partners and less care for their partner's welfare.

H₄: Social anhedonia is negatively related to care.

Conflict behaviors. Because those who are high in social anhedonia likely experience more negative feelings about their partners and relationships (i.e., less satisfaction from, less commitment to, less regard for, and less care towards their partners, as reviewed above), they should often react more negatively to conflict with their partners than people who are low in social anhedonia. Supporting this notion, prior research has suggested that people have more intense or frequent conflicts when they are

low in commitment (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991), have negative regard for their partners (Murray, Holmes, & Griffin, 1996), or are low in compassion or care for their partners (Crocker & Canevello, 2008). Therefore, those high in social anhedonia may be significantly more likely to engage in destructive conflict behaviors than are those low in social anhedonia.

H₅: Social anhedonia is associated with engagement in more destructive conflict behaviors.

Associations of Social Anhedonia with Perceptions of Partners' Sentiments and Behaviors

People's *perceptions* of their partners' sentiments and behaviors towards the self are central to relationships. The construct of perceived regard is defined as the perception that a partner is attracted to and has positive regard for the self (Clark & Lemay, 2010; Murray, Holmes, & Griffin, 2000). Similarly, perceived satisfaction, commitment, and care refer to the extent to which someone perceives that the partner is satisfied with the relationship, is committed to the person, and cares for the person's welfare, respectively. These perceptions tend to be highly correlated (Lemay & Neal, 2013).

These perceptions also have a strong influence on the quality of relationships. They tend to direct approach and avoidance motivation, allowing people to gauge their partners' motivations toward the self and the relationship, and thus, estimate how safe those partners are as objects of attachment (Clark & Lemay, 2010; Murray, Holmes, & Collins, 2006). In this manner, perceptions of others' regard and responsiveness largely determine which relationships will, and should, be most central to a person (Le & Agnew, 2003; Murray, Holmes, & Collins, 2006). In addition, people are likely to trust

their partners only to the extent that they believe their partners are committed to the relationship (Wieselquist et al., 1999), a belief that likely depends on the more basic perception that their partners are satisfied. Perceptions of a partner's regard (Murray, Holmes, & Griffin, 2000) and care (Lemay, Clark, & Feeney, 2007) are also strong determinants of relationship satisfaction. Hence, it is clear that positive perceptions of partners' sentiments (i.e., perceived partner regard, care, and commitment) and behaviors towards the self are rewarding.

Prior social anhedonia research has not examined the extent to which a perceptual bias is present in the socially anhedonic person's view of loved ones (Blanchard et al., 2011; Horan, Brown, & Blanchard, 2007). Given that social anhedonia is characterized by a relative inability to experience reward through social interactions (Blanchard, Horan, & Brown, 2001; Meehl, 1962), people high in social anhedonia should have more difficulty experiencing the reward of having an admiring, caring, committed, satisfied, and accommodating partner. Thus, social anhedonics may not fully appreciate the extent to which they are valued by their partners.

H_{6a}: Social anhedonia is negatively associated with perceived partner satisfaction, controlling for actual partner satisfaction.

H_{6b}: Social anhedonia is negatively associated with perceived partner commitment, controlling for actual partner commitment.

H_{6c}: Social anhedonia is negatively associated with perceived partner regard, controlling for actual partner regard.

H_{6d}: Social anhedonia is negatively associated with perceived partner care, controlling for actual partner care.

These more negative interpretations of relationships may also extend to perceptions of partner's behavior. Indeed, social anhedonics are more likely to perceive others' actions as malicious (Blanchard et al., 2011). Thus, those who are high in social anhedonia should also perceive their partner's behavior more negatively, perceiving more negative conflict behaviors than might actually be present.

H₇: Social anhedonia is positively associated with perceived partner's destructive conflict behaviors, controlling for the partner's actual behavior.

Social and Anhedonia and Attachment Insecurity

Prior research indicates that social anhedonia is highly correlated with attachment avoidance, a dimension of attachment insecurity involving discomfort with intimacy (Berry et al., 2006; Troisi et al., 2010). This is not surprising because descriptions of social anhedonics and avoidantly-attached individuals share common ground. For example, social anhedonics generally prefer solitude and do not pursue or enjoy social interactions as much as others (Brown et al., 2007). Thus, they spend greater amounts of time alone, engage less with people, and distance themselves more from social contacts. Similarly, those high in attachment avoidance prefer more distance from partners and more time in solitude (Shaver et al., 1996; Troisi et al., 2010). Furthermore, attachment avoidance is strongly related to decreased relationship satisfaction (Butzer & Campbell, 2008), more negative regard for partners (Overall & Sibley, 2008), decreased commitment to relationships (Hazan & Shaver, 1994), decreased care for partners (Birnbaum, 2007), and negatively biased perceptions of relationships (Birnbaum, 2007). Thus, not only do both constructs reflect high levels of asociality, but attachment

avoidance has also been associated with various negative relationship outcomes that are also predicted for social anhedonia.

The discomfort of intimacy characterizing attachment avoidance may be the result of perceiving that intimacy is both costly and unrewarding. Indeed, prior research suggests that attachment avoidance is associated with perceiving lack of rewards in relationships (Gere, MacDonald, Joel, Spielmann, & Impett, 2013; Spielmann, Maxwell, MacDonald, & Baratta, 2013; Troisi et al., 2010). Hence, social anhedonia may give rise to discomfort with intimacy (i.e., attachment avoidance) as a result of the decreased perception of intimacy rewards. In turn, this avoidance may create negative relationship sentiments, perceptions, and behaviors, as suggested by prior research. From this perspective, attachment avoidance may mediate some of the associations of social anhedonia with interpersonal relationship functioning. That is, given their general tendency to perceive lack of rewards in intimacy, anhedonics may become uncomfortable with intimacy (i.e., avoidant), and this discomfort may partially explain their thoughts and behaviors in their relationships.

However, I do not expect that attachment avoidance will explain all associations of social anhedonia. The constructs may only moderately overlap because, unlike social anhedonia, attachment avoidance is thought to arise as a result of fear of rejection and abandonment (Bartholomew, 1990; Troisi et al., 2010). Furthermore, whereas attachment avoidance primarily reflects discomfort with intimacy, social anhedonia reflects inability to experience rewards. Mirroring this, the items found on the Revised Social Anhedonia Scale (RSAS; Eckblad, Chapman, Chapman, & Mishlove, 1982) seem to address the issues of pleasure arising out of social interactions and presence of close relationships.

They do not address issues of discomfort with intimacy. Although overlapping to some degree, the discomfort with intimacy and inability to experience rewards would seem to have unique associations with relationship processes.

Attachment anxiety, dispositional fears of abandonment by close partners, is another dimension of attachment insecurity that is usually examined in conjunction with avoidance and has been associated with dysfunctional relationships (e.g.: Collins & Read, 1990). As described above, social anhedonia does not seem to be primarily driven by fears of abandonment or rejection, suggesting that social anhedonia is also distinct from attachment anxiety. Therefore, in the current research, analytical techniques will be used to assess whether social anhedonia is directly associated with relationship functioning independently of attachment anxiety and avoidance, and whether attachment avoidance mediates the relationship between social anhedonia and relationship functioning.

Summary of Hypotheses

In sum, independently of attachment insecurity, social anhedonia is hypothesized to be negatively associated with healthy relationship functioning. More specifically, as can be seen in Figure 1, it is expected to negatively relate to satisfaction (Path A), commitment (Path B), care (Path C), and regard (Path D), and positively relate to hostile conflict behavior (Path E). Additionally, as is illustrated in Figure 2, independently of attachment insecurity and actual sentiments and behaviors, social anhedonia is predicted to negatively relate to perceived partner satisfaction (Path A), commitment (Path B), care (Path C), and regard (Path D), and positively relate to perceived partner hostile conflict behavior (Path E).

Current Research

This study tested all the hypotheses described above through using both self-report measures and behavioral measures from observations of conflict-related discussions between dyads. Participants and their romantic partners completed a battery of measures and then engaged in a video-recorded interaction with their romantic partners during which they discussed a source of significant conflict in their relationship. Subsequently, they completed additional measures regarding the interaction.

Chapter II: Method

Participants

Four hundred and thirty eight individuals (219 heterosexual dyads) were recruited through various forms of advertisement, including newspapers, social media, university mailing lists, and bulletin board websites. Participants were either dating (95%), married (4%), or engaged (1%), and were, on average, 21 years old ($SD = 3.69$). One year after participating in an initial laboratory session, all participants were contacted to complete a second battery of measures, of which 281 participants agreed to do. Of the 157 participants who did not complete the second battery, 116 did not do so due to relationship dissolution.

Participants were compensated \$35 for participating in the original laboratory session. Additionally, they were either compensated \$25 for participating in second laboratory session, or \$15 for, instead, completing a shorter online questionnaire. The social anhedonia measure was included only in the second battery of measures administered at the one-year follow-up assessment. Hence, only data from this assessment were used in the current study. Of the 281 participants who participated in the second assessment, 51 completed the battery of measures online. Thus, their responses were included in the analyses involving self-report measures, but not in analyses involving conflict behavior or perceptions of the conflict interaction, which involve data gathered during an in-person observation session.

Procedure

Upon initial arrival with their romantic partner, participants provided informed consent, completed a battery of measures, engaged in a behavioral task, completed

measures regarding that task (for the 230 participants who returned to the laboratory), and were then debriefed. The behavioral task was a conflict interaction procedure adapted from prior studies on observed conflict interactions (Gottman, 1979; Lemay, 2014; Simpson, Rholes, & Phillips, 1996). First, participants generated three to five issues that they deemed to be sources of significant and unresolved conflict in their relationship with their partner. Subsequently, participants used their lists to jointly identify the issue causing the most significant, unresolved conflict. They then received the following instructions to discuss this issue: “Remember what you were arguing about and why you were upset with your partner. Remember what you were thinking about and how you felt during the argument. After remembering these things, we would like each of you to tell the other what it is about his or her attitudes, habits, or behaviors that bothers you. Please discuss the issue in detail.” After being given 10 minutes for the discussion, which was video-recorded, participants returned to separate rooms and completed post-interaction measures. They were then fully debriefed. Below we describe the measures that were used in the current investigation.

Pre-Interaction Measures

Prior to the conflict interaction, participants completed four measures of their sentiments towards partners, including relationship satisfaction (e.g.: “My relationship is close to ideal”; five items; Cronbach’s $\alpha = 0.92$), relationship commitment (e.g., “I am committed to maintaining my relationship with my partner”; seven items; Cronbach’s $\alpha = 0.91$), care for the partner (e.g., “I care for my partner’s needs”; five items; Cronbach’s $\alpha = 0.76$), and regard for the partner (e.g., “My partner has a number of good qualities”; five items; Cronbach’s $\alpha = 0.81$). Items assessing satisfaction and commitment were

adapted from Rusbult's Investment Model Scale (Rusbult, Martz, & Agnew, 1998); such adaptations have been successfully used in various other studies (e.g.: Lemay & Dobush, 2015; Lemay, Lin, & Muir, 2015; Lemay & Neal, 2013). Items assessing care were adapted from a measure of communal strength (Mills, Clark, Ford, & Johnson, 2004), which has also been successfully used in other studies to measure care (e.g.: Lemay & Neal, 2013; Lemay & Neal, 2014). Finally, items assessing regard were adapted from the Rosenberg Self-Esteem Scale, one of the most widely used self-esteem measures in psychology, and altered to measure esteem of the partner (Rosenberg, 1965). All items were completed on a 7-point scale (1 = strongly disagree; 7 = strongly agree). After responses to all negatively worded items were reverse-scored, responses to individual items for each scale were averaged, creating an index of each construct.

Participants also completed four equivalent measures assessing their perceptions of their partner's sentiments, including their partner's satisfaction (e.g., "My partner feels satisfied with our relationship"; Cronbach's $\alpha = 0.94$), commitment (e.g., "My partner is committed to maintaining our relationship"; Cronbach's $\alpha = 0.88$), care (e.g., "My partner cares for my needs"; Cronbach's $\alpha = 0.79$), and regard (e.g., "My partner thinks I have a number of good qualities"; Cronbach's $\alpha = 0.83$). All items were completed on a 7-point scale (1 = strongly disagree; 7 = strongly agree). Such modifications of items to assess perceptions have been successfully used in various other studies (e.g.: Lemay, 2014; Lemay & Neal, 2014). Responses to individual items for each scale were reverse-scored when necessary, then averaged, creating an index of each construct.

Additionally, participants completed the Adult Attachment Questionnaire (AAQ; Simpson, 1990). The AAQ is a widely used 17-item measure of attachment security

comprised of two subscales: anxious attachment (e.g.: “I find it difficult to trust others completely”; ten items; Cronbach’s $\alpha = 0.80$) and avoidant attachment (e.g.: “I’m nervous whenever anyone gets too close to me”; seven items; Cronbach’s $\alpha = 0.79$). All items were completed on a 7-point scale (1 = strongly disagree; 7 = strongly agree). Scores on all items in each subscale were calculated, reverse-scored when necessary, and averaged to create indexes of attachment anxiety and attachment avoidance.

The AAQ was validated by Simpson, Rholes, and Phillips (1996). A principal-axis factor analysis, followed by a varimax rotation, revealed two dimensions: one showing the degree to which individuals exhibit avoidance, and one showing the extent to which they exhibit ambivalence, including being preoccupied with abandonment, loss, and a lack of commitment. The avoidance dimension corresponds closely to Collins and Read’s (1990) Closeness-Dependence factor, which is the total of their Closeness and Comfort with Dependence subscales, found in the Adult Attachment Scale. The AAQ’s Ambivalence subscale also maps onto the AAS’ Anxiety subscale. Additionally, higher scores on the AAQ’s Avoidance dimension are associated with greater dismissive avoidance, and higher scores on the Ambivalence dimension are associated with higher scores on Hazan and Shaver’s (1987) anxious-ambivalence vignette. Finally, even after all five primary personality dimensions (openness, conscientiousness, agreeableness, extroversion, and neuroticism) and various relationship measures (i.e., love, liking, commitment, satisfaction, trust, and subjective closeness) were factored out, scores on the AAQ predicted various important outcomes. They predicted indices of: perceived distress, anger-hostility, stress-anxiety, warmth-supportiveness, and the quality of a romantic dyad’s interaction.

Finally, participants completed the Revised Social Anhedonia Scale (RSAS; Eckblad, Chapman, Chapman, & Mishlove, 1982). This scale measures people's levels of social anhedonia (e.g.: "In many ways I prefer the company of pets to the company of people" and "When I am alone I often resent people telephoning me or knocking on my door "; 40 items; Cronbach's $\alpha = 0.85$). All items were measured on a True-False scale. Items were reverse-scored when necessary so that all items were scored as one if they were answered in a social anhedonic direction and as zero otherwise. Responses were then summed to create a single index of social anhedonia.

The RSAS was validated by Mishlove and Chapman (1985) and is used widely in the study of social anhedonia (e.g.: Chapman et al., 1994; Kwapil, 1998; Blanchard, Mueser, & Bellack, 1998). This scale has been shown to have high sensitivity and specificity (Mishlove & Chapman, 1985). Further supporting its validity, high scores on the scale are correlated with a lack of friends, social isolation, and dating disinterest, but not with hypersensitivity or loneliness (Mishlove & Chapman, 1985). They are also moderately correlated with Physical anhedonia, but weakly correlated with Perceptual Aberration, Magical Ideation, and Impulsive Nonconformity, showing that this scale is independent of other schizotypy scales.

Behavioral Observation Measures

Each participant's video recording of the conflict discussion that occurred during the second laboratory session was watched and rated by a panel of eight objective observers. The observers could only rate and see one dyad member at a time. Furthermore, each observer rated the participants in a different random order. For each participant, observers assessed destructive conflict behavior using five items: "How

hostile or angry was the participant toward his or her partner?"; "How critical or insulting was the participant toward his or her partner?"; "To what extent did the participant blame the problem on his or her partner?"; "How cold or distant was the participant toward his or her partner?"; and "How rejecting was the participant toward his or her partner?". Each item was measured on a 7-point scale (1=not at all; 7=very much). There was high inter-coder agreement across the individual items (Cronbach's α ranged from .78 to .91; $\bar{\alpha} = 0.86$). All observers' ratings for each particular item were averaged. Subsequently, ratings on the five items assessing destructive behavior were averaged, creating an index of observed destructive behavior (Cronbach's $\alpha = .92$). Please see Lemay & Dobush (2015) for successful usage of this scale.

Post-Interaction Measures

After the ten-minute discussion, participants completed measures of their perceptions of their partner's behavior during the discussion, including the five items pertaining to destructive behavior during the discussion. The items were identical to the items completed by the coders listed above, but they were reworded to assess perceptions of one's partner (e.g., "How hostile or angry was your partner toward you?"; Cronbach's $\alpha = 0.85$). The items were answered on the same 7-point response scale. Ratings on the five items assessing destructive behavior were averaged, creating an index of perceived partner destructive conflict behavior.

Chapter III: Results

Analysis Strategy

All hypotheses were tested using multilevel models in order to account for the likelihood that each dyad-member's response on the criterion variable is related to their partner's response. The models treated partners as nested within the same dyad, and a compound symmetry error structure, modeling covariance across the two partners in their scores on the outcomes variables, was specified to account for dyadic interdependence (Kenny, Kashy, & Cook, 2006). Additionally, given the limited degrees of freedom present in dyadic research, all predictors were modeled as fixed. Predictor variables were all centered on the grand mean. Finally, for the primary results, in addition to unstandardized coefficients (b), standardized coefficients (β) are provided so predictive effects can be compared. Standardized coefficients were calculated through standardizing all predictor and outcome variables relative to their sample means. Prior to the multilevel models testing the hypotheses, bivariate correlations, descriptive statistics, and results of confirmatory factor analysis are reported.

Bivariate Correlations

Bivariate correlations between partner sentiments and behaviors, as well as between perceived partner sentiments and behaviors, were examined and can be found in Tables 1 and 2. As can be seen, there was a significant correlation between all sentiments and behaviors, and between all perceived partner sentiments and behaviors. Pearson's correlations between sentiments were high, ranging from 0.505 to 0.712. Similarly, correlations between perceived sentiments ranged from 0.607 to 0.743. However, correlations of the sentiments with hostile behaviors were lower, ranging from -0.149 to -

0.325. Correlations between perceived hostile behavior and perceived sentiments were also low, ranging from -0.227 to -0.403. These correlations indicate that there is indeed a lot of covariation between sentiments, which is expected. However, these variables are not perfectly correlated, indicating that they are not all assessing the same latent construct.

Bivariate correlations between both types of attachment insecurity and social anhedonia were also examined, and can be found in Table 3. All three variables were significantly correlated with one another, with social anhedonia and attachment avoidance having the highest correlation, $r = 0.50$. This indicates that although there is significant overlap, the two measurements are not assessing identical constructs.

Confirmatory Factor Analysis

As discussed, the four indicators of sentiments toward the partner (care, commitment, regard, and satisfaction) were strongly correlated. Before proceeding to the tests of hypotheses, I conducted a confirmatory factor analysis (using AMOS 17.0) to discern whether these constructs should be considered separate constructs in the analyses that follow, or whether they should be considered the same construct. I predicted that a model treating these constructs as separate would perform better than one treating them as being part of one latent construct.

I first tested a model in which the items assessing each of these constructs were modeled as loading on a latent factor representing that construct. Dyad was the unit of analysis and separate variables were included for male and female members. One latent factor was modeled for each of the care, commitment, regard, and satisfaction constructs, and this was done separately for the male and female partners. The four latent factors

were modeled as correlated within person. To account for potential interdependence across the two partners belonging to the same dyad, all latent factors were modeled as correlated across the two partners. In a second model, I modeled all of the items assessing care, commitment, regard, and satisfaction as loading on a single latent factor representing sentiments toward the partner. One such factor was modeled for the male partner, and one was modeled for the female partner. Again, these two latent factors were modeled as correlated across the partners to account for dyadic interdependence (i.e., similarity across the two partners). Comparing the fit of these two models with a chi-square difference test, I found that the model specifying all of the items as loading on a single "sentiment" factor was a significantly worse fit to the data relative to the original four-factor model, $\chi^2(27) = 640.85, p < .001$. Hence, although these constructs are related, they are not so strongly related as to suggest that they are identical, and they will be treated as separate constructs in the analyses that follow.

Descriptive Statistics

Before relationships between social anhedonia and various sentiments and behaviors were examined, descriptive statistics were generated through the use of totally unconditional models, models where no predictors were entered. These models estimated the means as well as amount of variance that was within dyads as well as between dyads. All descriptive statistics can be seen in Table 4. The means suggest that actual and perceived sentiments are generally high, and that destructive conflict behaviors are generally low. With regard to social anhedonia, the sample mean was 10.14 ($SD=6.29$), with the RSAS being scored on a scale of 0-40. In 1995, Chmielewski, Fernandes, Yee, and Miller published norms for the RSAS ($N= 7,691$), reporting means ranging from 7.15

($SD=5.13$) for Caucasians to 8.99 ($SD=5.12$) for Blacks. Later in 2008, Kwapil, Barrantes-Vidal, and Silvia used a non-clinical sample ($N=6137$) and reported slightly higher means, ranging from 7.23 ($SD=5.34$) for Caucasian females to 11.38 ($SD=5.74$) for Black males. Thus, relative to other large-scale studies, this sample's mean is slightly high but not unexpected. Given that the sample used for this study was comprised of 281 participants, it is not surprising that its standard deviation is larger than that of other large samples.

The variance estimates suggest that there is a significant amount of variance at both the individual and dyad level. However, all the intraclass correlation coefficients (ICC) are less than 0.50, suggesting that even though sentiments and behaviors are both individual and dyad-level constructs, more variance is found at the individual level rather than the dyad level. Importantly, social anhedonia's $ICC=0$, meaning that almost all variance is found at the individual rather than the dyad level, and that one participant's level of social anhedonia was relatively uncorrelated with the partner's level.

Partial Predictive Effects on Sentiments and Behaviors Towards Partners

Social anhedonia. The first set of hypotheses in this study concerned the association of social anhedonia with sentiments and behaviors towards a romantic partner. More specifically, I expected that social anhedonia would be associated with decreases in satisfaction with, commitment to, regard for, and care for romantic partners, and with increases in the amount of hostile behavior towards them, after covarying out attachment insecurity. Prior to testing these hypotheses, five models were run, each with a sentiment or behavior being entered as the outcome variable, and with the index of social anhedonia being entered as the only predictor. These analyses provide an estimate

of the predictive effects of social anhedonia before controlling for attachment insecurity. These results can be found in Table 5. As can be seen, social anhedonia negatively predicted all sentiments towards partners, but did not predict hostile behaviors.

To test the associations of social anhedonia with relationship satisfaction independently of attachment insecurity (H_1), the index of relationship satisfaction was entered as the outcome variable; indices of social anhedonia, attachment anxiety, and attachment avoidance, were entered in as predictors. Another four models were run to test the association of social anhedonia with commitment (H_2), regard (H_3), care (H_4), and destructive conflict behaviors (H_5). Each model replaced relationship satisfaction with the primary outcome variable of interest for each hypothesis. Results are presented in Table 6. Estimates can be interpreted as the predictive effects of each predictor after subtracting indirect effects via associations with other predictors.

The hypotheses were partially supported. Consistent with some predictions, after covarying out the predictive effects of both types of attachment insecurity, social anhedonia predicted satisfaction and care, and marginally predicted regard ($p = 0.052$). However, the hypothesized associations of social anhedonia with commitment and hostile behaviors, after covarying out attachment insecurity, were not supported. Therefore, these results indicate that participants with higher social anhedonia were less satisfied with, caring towards, and admiring of their romantic partners. However, these individuals were not significantly less committed to their partners, and did not engage in significantly more hostile behavior towards their partners, after attachment insecurity was varied out.

Attachment avoidance and anxiety. Interestingly, as can be seen in Table 6, after covarying out the predictive effects of social anhedonia and attachment anxiety,

attachment avoidance only predicted commitment towards a romantic partner. However, after covarying out the predictive effects of social anhedonia and attachment avoidance, attachment anxiety significantly predicted satisfaction, regard, care, and hostile behaviors, but not commitment. The results suggest that attachment avoidance contributed unique variance to individuals' commitment scores that attachment anxiety and social anhedonia did not contribute. The more avoidantly attached, but not anxious or socially anhedonic, an individual is, the less likely he/she is to be committed. Given that attachment avoidance may be caused, at least in part, by social anhedonia, it is possible that attachment avoidance mediated the relationship of social anhedonia with commitment. This possibility was tested and is discussed later.

Partial Predictive Effects on Perceived Partner Sentiments and Behaviors

Social anhedonia. The second set of hypotheses in this study concerned the association of social anhedonia with how people perceived their partners' sentiments and behaviors. More specifically, I expected that after covarying out attachment insecurity, social anhedonia would be associated with decreases in perceived partner satisfaction, commitment, regard, and care, and with increases in perceived partner hostile behavior. Prior to testing these hypotheses, five models were run, each with a perceived partner sentiment or behavior being entered as the outcome variable, and with the index of social anhedonia being entered as the only predictor. These models were tested to obtain estimates of the zero-order predictive effects of the social anhedonia, when attachment insecurity is not controlled. The results are found in Table 7. As can be seen, social anhedonia negatively predicted perceived partner satisfaction, regard, and care, but not perceived partner commitment. It did not positively predict hostile behaviors either.

To test the association of social anhedonia with perceived partner satisfaction independent of attachment insecurity and accuracy (H_{6a}), the index of relationship satisfaction was entered as the outcome variable; indices of social anhedonia, attachment anxiety, attachment avoidance, and the partner's actual satisfaction level were entered in as predictors. An additional four models were run to test the association of social anhedonia with perceived partner commitment (H_{6b}), perceived partner regard (H_{6c}), perceived partner care (H_{6d}), and perceived partner destructive conflict behaviors (H_7). Each model replaced perceived partner satisfaction with the primary outcome variable of interest for each hypothesis. Results are presented in Table 8. Estimates can be interpreted as the predictive effects of each predictor after subtracting the indirect effects via association with the other predictors. Again, the hypotheses were partially supported. After covarying out the predictive effects of both types of attachment insecurity and the actual partner sentiment, social anhedonia predicted perceived partner satisfaction and care. It also marginally predicted perceived partner commitment and regard. However, it did not predict perceived partner hostile behaviors. Therefore, the results suggest that the more socially anhedonic individuals were, the less they perceived their partners to be caring, satisfied, committed to, and regarding of them, even after controlling for their partners' actual levels of felt care, satisfaction, commitment, and regard, respectively.

Attachment anxiety and avoidance. After controlling for the other predictors noted above, attachment avoidance did not predict any perceived partner sentiments or behaviors. However, attachment anxiety significantly predicted perceived partner satisfaction, commitment, regard, care, and hostile behaviors. These results suggest that

attachment anxiety still captured unique variance in these perceptions, but attachment avoidance did not.

Actual partner sentiments and behaviors. After controlling for the other predictors noted above, the partner's self-reported sentiments and the index of partner's behavior predicted all perceived partner sentiments or behaviors. This suggests that, independently of social anhedonia and attachment insecurity, individuals still rely on the their partner's behavior to make their judgments, signifying somewhat accurate perceptions of partners.

Additional Analyses

The moderating effect of gender. Additional analyses were conducted to test boundaries on the results. It could be that the associations of social anhedonia and attachment insecurity with sentiments and behaviors towards romantic partners only hold for one gender, but not the other. Thus, the interaction of gender with each predictor in all ten models that were run in the primary results section was tested. This was done through the addition of a gender variable as well as three interaction terms (the interaction of gender with social anhedonia, attachment anxiety, and attachment avoidance) to the models testing the predictive effects of social anhedonia and attachment insecurity on sentiments and behaviors towards partners. For each of the models testing the predictive effects on *perceived partner* sentiments and behaviors, an additional term representing the interaction of gender with the actual partner sentiment or behavior was included.

Gender was coded so that 0.5 represented females and -0.5 represented males. This allowed zero to represent the midpoint between males and females. Also, given that the dyads were distinguishable on gender, a heterogeneous compound symmetry error

structure, modeling covariance across the two partners in their scores on the outcomes variables, was specified to allow for differing variances for males and females.

Gender did not moderate the predictive effects of social anhedonia or attachment anxiety for any sentiments or behaviors towards romantic partners. Additionally, it did not moderate the predictive effects of social anhedonia, both types of attachment insecurity, or actual partner sentiments and behaviors on perceived sentiments and behaviors. Gender did moderate the predictive effect of attachment avoidance on commitment ($\beta = -0.28$, $t = -2.08$, $p = 0.04$). Probing this interaction revealed that avoidance negatively predicted commitment for males ($\beta = -0.34$, $t = -3.04$, $p = 0.003$), but did not predict commitment for females ($\beta = -0.06$, $t = -0.79$, $p = 0.43$). Importantly, gender did not alter any findings related to the predictive effects of social anhedonia.

Self esteem as a covariate. Social anhedonia as a stable, enduring personality trait is different than the social anhedonia that occurs as a symptom of depression, which is short-lived and largely disappears at the end of a clinical state of depression (Blanchard, Horan, & Brown, 2001). Thus, some may argue that the predictive effects of social anhedonia found in this study could simply be capturing variance due to depression, and not social anhedonia, the enduring personality trait. In order to test this alternative explanation, and given that this alternative prediction came to mind after data collection and so a measure of depression was not administered, I tested the predictive effects of social anhedonia after covarying out those of self-esteem. Self-esteem may be a reasonable proxy for depression in light of the cognitive theories suggesting that low self-esteem is a primary risk factor for depression (Beck, 1967; Brown & Harris, 1978). Furthermore, prior measurement work suggests that self-esteem and sub-clinical

depression are opposite ends of the same continuum (Watson, Suls, & Haig, 2002). Thus, I used self-esteem as an index for subclinical depression or vulnerability to depression.

The multilevel models used to test the theoretical models in Figure 1 and Figure 2 were re-run with self-esteem replacing attachment insecurity as the covariate. To test the model in Figure 1, five models were run, each including one of the sentiments or behaviors as the outcome variable, with self-esteem and social anhedonia both being entered as level-one predictors. The results are shown in Table 9. As can be seen, even after covarying out the predictive effects of self-esteem, social anhedonia significantly predicted decreases in satisfaction, commitment, regard, and care. Similar to previous results, social anhedonia did not predict hostile behavior towards the romantic partner. Contrastingly, self-esteem only predicted increases in satisfaction and regard after the predictive effects of social anhedonia were covaried out. The results suggest that the predictive effects of social anhedonia on sentiments towards the romantic partner described above cannot be explained by self-esteem, a proxy for depression.

To test the associations of social anhedonia with perceived partner sentiments and behaviors after covarying out self-esteem, another five multilevel models were run. For each model, a sentiment or behavior was entered in as the outcome variable, with self-esteem, social anhedonia, and the respective actual partner's sentiment or behavior all being entered in as predictors. The results are presented in Table 10. Social anhedonia predicted perceived partner satisfaction, commitment, care, and hostile behavior independently of self-esteem and the index of the partner's actual sentiments or behavior. Self-esteem and the partner's actual sentiments were significant predictors in most models. Thus, the predictive effects of social anhedonia on perceived partner sentiments

and behaviors presented in the primary results section were not explained through self-esteem.

The mediating role of attachment avoidance. Given that, theoretically, social anhedonia could affect attachment avoidance, the mediating role of attachment avoidance on the relationship between social anhedonia on all sentiments and behaviors, as well as perceived partner sentiments and behaviors, was examined for outcomes that were previously predicted by attachment avoidance. Avoidance was only found to mediate the relationship between social anhedonia and commitment, and partially mediate the relationship between social anhedonia and care.

Commitment. First, I regressed commitment on social anhedonia, which revealed a significant predictive effect of social anhedonia, $\beta = -0.17$, $t = -3.07$, $p = 0.002$. Second, I regressed attachment avoidance on social anhedonia, which revealed a significant predictive effect of social anhedonia, $\beta = 0.50$, $t = 9.58$, $p < .001$. Finally, when I regressed commitment on both social anhedonia and attachment avoidance, the predictive effect of attachment avoidance was significant, $\beta = -.16$, $t = -2.50$, $p = .013$, but the predictive effect of social anhedonia was no longer significant, $p = .179$. Results are presented in Figure 3. The indirect predictive effect, which was tested using The Monte Carlo Method for Assessing Mediation (MCMAM; Selig & Preacher, 2008), was found to be significant when estimated with 20,000 bootstrapped samples, 95% CI (-0.15, -0.02). Hence, these results suggest that attachment avoidance mediates the predictive effect of social anhedonia on commitment.

Care. First, I regressed care on social anhedonia, which revealed a significant predictive effect of social anhedonia, $\beta = -0.24$, $t = -4.24$, $p < 0.001$. Second, I regressed

attachment avoidance on social anhedonia, which revealed a significant predictive effect of social anhedonia, $\beta = 0.50$, $t = 9.58$, $p < .001$. Finally, when I regressed care on both social anhedonia and attachment avoidance, the predictive effect of attachment avoidance was significant, $\beta = -0.14$, $t = -2.21$, $p = .028$, and the predictive effect of social anhedonia still remained significant, but was reduced, $\beta = -0.16$, $t = -2.57$, $p = .011$. The indirect predictive effect of social anhedonia on care via attachment avoidance was significant, 95% CI (-0.14, - 0.01). Hence, the results, which are presented in Figure 4, suggest that attachment avoidance partially mediates the predictive effect of social anhedonia on care.

Summary

This study partially supported predictions regarding the association of social anhedonia with actual sentiments and behaviors towards, and perceived sentiments and behaviors of, romantic partners. After covarying out the predictive effects of both types of attachment insecurity, social anhedonia predicted satisfaction and care, and marginally predicted regard. Additionally, after covarying out the predictive effects of both types of attachment insecurity and the actual partner sentiment, social anhedonia predicted perceived partner satisfaction and care, and marginally predicted perceived partner commitment and regard. The reported predictive effects of social anhedonia were not moderated by gender or explained by self-esteem, a proxy for depression. Avoidance appeared to function as a mediator for predictive effects of social anhedonia on commitment and care for the partner.

Chapter IV: Discussion

The hypothesized associations of social anhedonia with people's perceived and actual sentiments and behaviors towards romantic partners were tested in the present study. I hypothesized that social anhedonia would be negatively associated with actual and perceived satisfaction, commitment, regard, and care for romantic partners, and would be positively associated with actual and perceived conflict behaviors, after covarying out the associations of attachment anxiety and attachment insecurity with those sentiments. Support was found for the negative association of social anhedonia with actual satisfaction, regard, and care, and on perceived satisfaction, commitment, regard, and care, after covarying out attachment insecurity. The results were not explained through attachment insecurity or self esteem, a proxy for depression. They were also not moderated by gender. Support was not found for a direct association of social anhedonia with commitment and hostile behavior, or for perceived hostile behavior, after covarying out attachment insecurity, but attachment avoidance appears to have mediated the association of social anhedonia on commitment.

Satisfaction, Regard, and Care

Social anhedonia negatively predicted satisfaction, suggesting that the more socially anhedonic people are, the less satisfied they are with their romantic relationships. That is, the more socially anhedonic they are, the less rewarding and more costly they perceive relationships to be (Rusbult, 1980). Attachment insecurity cannot explain this finding since its predictive effects were covaried out in the analyses. This result is consistent with the finding that socially anhedonic people experience decreased rewards during social interactions (Brown et al., 2007). Additionally, it complements findings that

social anhedonics have relatively low positive affect, and high negative affect (Blanchard, Mueser, and Bellack, 1998), and that, in turn, low positive affect and high negative affect are negatively correlated with relationship outcomes (Lyubomirsky, King, & Diener, 2005). The reduced relationship satisfaction likely also explains why socially anhedonic people prefer to engage less with relationship counterparts and distance themselves more from social contacts (Brown et al., 2007; Mishlove & Chapman, 1985).

Social anhedonia predicted lower levels of regard for a romantic partner after covarying out the predictive effects of attachment insecurity, implying that socially anhedonic people regard their partners more negatively than non-socially anhedonic people. This finding could be explained through social anhedonics' compromised abilities to detect rewarding aspects of their relationships, which includes their partners' positive qualities.

Social anhedonia negatively predicted care for the partner after covarying out the predictive effects of attachment insecurity. This suggests that the more socially anhedonic people are, the less they care about their romantic partners, and that this association cannot be explained by how anxiously or avoidantly attached people are. One potential explanation for this finding is that social anhedonics have more negative regard for their partners and reduced satisfaction, causing lower desires for intimacy and more desires to maintain relatively large distances between themselves and others (Brown et al., 2007). Low desire for intimacy, in turn, could decrease their valuing of partners' welfare and their levels of empathy (Batson et al., 2007), decreasing their motivations to be responsive to their partners (Clark et al., 1987).

Commitment

Counter to my hypothesis, social anhedonia did not predict commitment after controlling for attachment avoidance, even though social anhedonia did predict commitment when attachment variables were not controlled. Given the robust effect of satisfaction on commitment (Le & Agnew, 2003; Rusbult, 1980; Rusbult & Buunk, 1993), the unsupported hypothesis was surprising. However, given that social anhedonics were more avoidant, and given that avoidance predicted commitment, the mediating role of attachment avoidance on the relationship between social anhedonia and commitment was also examined. As can be seen in Figure 3, attachment avoidance did indeed mediate the social anhedonia-commitment relationship. This result supports the perspective that attachment avoidance is the outcome of perceiving both low rewards and high costs to intimacy, with social anhedonia increasing avoidance by decreasing the perceived rewards (Gere, MacDonald, Joel, Spielmann, & Impett, 2013; Spielmann, Maxwell, MacDonald, & Baratta, 2013; Troisi et al., 2010). Future longitudinal research should examine the extent to which social anhedonia gives rise to increases in attachment insecurity over time via changes in the perceived rewards of intimacy.

Perceived Sentiments

In line with the hypotheses, social anhedonia was negatively associated with perceived satisfaction, commitment, regard, and care, after covarying out attachment insecurity. Thus, those who are high in social anhedonia are likely to perceive their partners as less satisfied with, committed to, regarding of, and caring towards them than they actually are. This finding can be explained through the fact that social anhedonics do not find relationships very rewarding, which increases the likelihood that they will not

experience the reward of perceiving their partner as admiring, satisfied, committed, and caring. These findings could also be due to the tendency for people to project their feelings of care onto others (Lemay & Clark, 2008). Perhaps social anhedonics see their partners as having more negative sentiments because of their tendencies to assume their own negative sentiments are reciprocated by their partners.

There are several implications of the results discussed thus far. Importantly, such findings imply that social anhedonics are more likely to have worse relationship outcomes, which could increase likelihood of relationship dissolution. This implication is consistent with the finding that clinical levels of social anhedonia are correlated with lower levels of dating and marriage (Kwapil, 1998; Mishlove & Chapman, 1985). The findings may also have implications for well-being. Higher rates of relationship dissolution decrease availability of social support, which in turn causes decreases in well-being (Dush & Amato, 2005; Feeney & Collins, 2015). Additionally, absence of intimate relationships and decreases in social support increase likelihood of developing depression (Brown & Harris, 1978; Coyne & Downey, 1991).

Actual and Perceived Hostile Behavior

After covarying out attachment insecurity, social anhedonia did not predict hostile behavior or perceived partner hostile behavior. Thus, social anhedonics do not seem to act in a more hostile manner towards their partners, nor do they seem to perceive that their partners are more hostile toward them. This finding is not consistent with the relationships literature indicating that decreased regard, decreased care, and decreased perceived regard are all associated with increased conflict and conflict behavior (Crocker & Canevello, 2008; Murray, Bellavia, Rose, & Griffin, 2003; Murray, Holmes, & Griffin,

1996; Murray, Holmes, & Griffin, 2000). It is also inconsistent with findings implying that social anhedonics perceive others' actions as more malicious and that they are involved in more family conflict (Blanchard et al., 2011).

Several possible explanations exist for these results. It could be that the couples avoided getting into intense discussions due to self-consciousness, the short length of the discussion, or the novel environment they were asked to discuss potentially relationship-harming topics in. Supporting this, the mean hostile behavior score was 2.18 (SD = 0.94), with the highest score being 5.6 on a seven-point scale. Another potential explanation is that only clinical, but not sub-clinical, levels of social anhedonia significantly affect hostile behavior levels, and this sample was non-clinical, with the highest social anhedonia score being a 0.78 on a 0-1 scale. It may also be the case that social anhedonics are less emotionally involved in their conflicts, which aids them in feeling less intense anger, and this counteracts the effects of their negative sentiments and perceptions on their destructive conflict behavior. Finally, considering that this sample of couples had already maintained their relationship for at least one year, it could be that part of what prevented prior relationship dissolution was their successful ability to handle conflict effectively and refrain from engaging in hostile behavior.

It should be noted that in this study, the partner's actual sentiments were measured using the partner's ratings of their own sentiments. Additionally, actual behaviors were measured by ratings made by a panel of observers. Despite these measures of reality being commonly used in the literature, they are undoubtedly imperfect, like any other measure. However, since the best we can do is to examine convergence across several

imperfect measures (Funder, 1995), future research should include an expanded set of measures of reality.

Social Anhedonia and Attachment Insecurity

Despite both attachment avoidance and attachment anxiety being covaried out in the analyses, social anhedonia remained as a predictor of satisfaction, reward, and care. Furthermore, attachment avoidance mediated the relationship between social anhedonia and commitment. Such results imply that there is indeed a distinct conceptual difference between social anhedonia and attachment avoidance. Specifically, these results are consistent with arguments that social anhedonia differs from attachment avoidance in that social anhedonia represents a decreased ability to experience social reward rather than a defensive deactivation of intimacy needs (Silvia & Kwapil, 2011; Troisi et al., 2010). The fact that avoidant attachment is fueled by a high fear of rejection (Bartholomew, 1990), whereas social anhedonia is uncorrelated with that fear (Troisi et al., 2010), further corroborates the view that social anhedonia decreases the reward of social interaction, that fear of rejection increase the perceived costs of relationships, and that both reward and fear factors jointly contribute to the discomfort with intimacy characterizing attachment avoidance.

Limitations

This study is not without limitations. Due to the cross sectional nature of this study, directionality cannot be claimed. Thus, it is unclear whether social anhedonia causes these actual and perceived sentiments, or whether they yield social anhedonia. Bi-directional effects are possible. For example, just as social anhedonia may lead people to have more negative thoughts and feelings about their romantic relationships, these more

negative thoughts and feelings about their romantic relationships may generalize to more global negative representations of relationships, causing greater social anhedonia.

Together, such processes may contribute to the stability of social anhedonia over time.

Future longitudinal studies may help address this issue.

Another limitation involves the sample used. This sample consisted of couples who had already been dating for at least one year, and who had already participated in this experiment a year ago, thus knowing it's nature, and consented to participate a second time. These procedures could have inadvertently selected out those with more severe anhedonia, those whose social anhedonia could have caused earlier relationship dissolution, or those who knew of the nature of the first assessment wave and were so uncomfortable with the conflict discussion that they declined to repeat it a second time. Although limited, these methods are commonly used in research seeking to delineate relationship processes.

Also, since the measure of social anhedonia was not given to the subjects the prior year that they participated in the experiment, it is unknown whether social anhedonia was associated with study attrition or relationship breakup. However, if more socially anhedonic participants were less likely to participate in the second wave of data collection, this would have made it more difficult to achieve variation on the scales used, potentially removing highly socially anhedonic, dissatisfied participants from our sample. Despite this potential restriction of range, there was sufficient variation in the data to detect the hypothesized associations with social anhedonia, many of which were strong.

The associations of social anxiety were not assessed in the current research. Thus, one could argue that associations between social anhedonia and social anxiety may

explain social anhedonia's associations. However, since, like attachment insecurity, social anxiety is significantly driven by anticipatory criticism and rejection (Silvia & Kwapił, 2011), this is likely not the case. Furthermore, associations of social anhedonia were not explained by attachment anxiety, which is correlated with social anxiety (Eng, Heimberg, Hart, Schneier, & Liebowitz, 2001). Nonetheless, future research could also control for social anxiety.

Finally, even though social anhedonia is an enduring trait, it also appears as a symptom of depression. However, this type of social anhedonia diminishes as the person recovers from depression, and is thus different than the enduring type of social anhedonia associated with schizophrenia (Blanchard, Horan, & Brown, 2001). Thus, some may argue that it is not the enduring social anhedonia trait that is associated with these relationship outcomes, but rather, it is depression that is associated with them. Although I statistically controlled for self-esteem, a proxy for proneness to depression (Blanchard, Horan, & Brown, 2001), and found that self-esteem did not explain predictive effects of social anhedonia, participants were not clinically assessed for depression, and future research would benefit from screening depressed patients out of the sample or controlling for their depression. Furthermore, future research should attempt to disentangle trait and state forms of social anhedonia to examine their unique implications for interpersonal relationships.

Future Directions

Given that this is the first study to examine the associations of social anhedonia with romantic relationship processes in a non-clinical sample, there is much more to be explored on this topic. For example, this study did not attempt to distinguish between the

different types of reward process deficits that combine to form social anhedonia (Llerena, Park, Couture, & Blanchard, 2012). Social anhedonia arising primarily from deficits in anticipatory reward processes (i.e., forecasted evaluations of relationship-related rewards) may yield different results than social anhedonia arising from deficits in consummatory reward processes (actual relationship-related rewards). Social anhedonia fueled primarily by deficits in anticipatory reward processes may be associated with the expectation that relationships with more people will be unrewarding, increasing the threshold necessary for socially anhedonic individuals to seek social interaction. However, once that person has experienced the relationship and has relatively fewer problems with consummatory reward processes, he or she may have less of a problem maintaining the relationship than someone with primarily consummatory reward process-related problems. In contrast, social anhedonia fueled primarily by deficits in consummatory reward processes may be associated with the expectation that relatively less people will be unrewarding, thus initiating more relationships than those with deficits in anticipatory reward processes. However, once these relationships have been initiated, those with consummatory deficits may experience less reward from them, thus experiencing higher rates of relationship dissolution. Consequently, deficits in the different reward processes associated with social anhedonia require further attention. For example, given that decreases in anticipated relationship rewards shape relationship processes (Lemay, in press; Lemay, Lin, & Muir, 2015), future research could test the associations of social anhedonics' anticipated relationship rewards with sentiments and behaviors under investigation in this study as a possible explanation for the current findings. Furthermore, even though I found that social anhedonia predicted various sentiments towards romantic partners despite

covarying out attachment insecurity, my hypothesized explanation for these predictive effects, that avoidance is due to both social anhedonia and fear of the perceived threat of rejection, has not been tested. Thus, future studies should test the associations of both constructs with attachment avoidance.

Research on this topic would also benefit from longitudinally studying the relationship between social anhedonia and romantic relationship processes to help inform the causal nature of these associations. Moreover, it would be informative to replicate this study using newer couples, ones that had only been together for two months or less, to examine whether or not the discovered associations hold. Additionally, behaviorally, this research only examined the association between social anhedonia and hostile conflict behavior. It would be interesting to examine its associations with constructive conflict behavior as well. It could be that, whereas sub-clinical social anhedonics are not more hostile, they respond less constructively to conflict.

Finally, future research should consider how the interaction of someone's level of social anhedonia with his/her partner's level of social anhedonia is associated with specific relationship outcomes. For example, it could be that if both partners are high in anhedonia, they would have similar expectations and a better understanding of each other's sentiments, perceptions, and daily experiences. Resultantly, they may engage in less conflict and have more positive relationship outcomes than partners with a discrepancy in their levels. However, for social anhedonics, it could also be that having a partner who is low in social anhedonia would be more beneficial, as at least one partner in the relationship would be motivated to sacrifice, commit, and resultantly, maintain the relationship. In the current sample, an ICC of zero for social anhedonia suggests that

there are equivalent amounts of pairs in the population that are both high as there are pairs that are low in social anhedonia, as there are pairs that have unequal levels of it, making it feasible to examine such a research question.

Conclusion

Social anhedonia is a construct associated with schizophrenia that, despite having clear interpersonal implications, has not been frequently studied in the field of romantic relationships. This research is the first to test predictions regarding the association of romantic relationship processes and outcomes with social anhedonia in a non-clinical sample. The current findings provide support for the predicted associations of social anhedonia with important sentiments towards romantic partners and relationships, as well as analogous perceptions of the partner's sentiments. Specifically, after covarying out social anhedonia's indirect predictive effects through attachment anxiety and avoidance, social anhedonia was found to be negatively associated with satisfaction with, regard for, and care for romantic partners. Furthermore, attachment avoidance was found to mediate the relationship between social anhedonia and commitment. Additionally, independently of attachment anxiety and avoidance, social anhedonia was related to perceived partner satisfaction, commitment, regard, and care. However, no support was found for its hypothesized relationship with hostile behavior or perceived partner hostile behaviors. In conclusion, despite its novelty in the field of romantic relationships, social anhedonia has the potential to further explain relationship outcomes above and beyond the frequently studied attachment orientations, thus ultimately aiding in further prediction of well-being in non-clinical populations.

Chapter V: Tables

Table 1

Bivariate Correlations for Sentiments and Behaviors Towards the Partner

	Satisfaction	Commitment	Regard	Care	Hostile Behaviors
Satisfaction	-				
Commitment	.712**	-			
Regard	.706**	.710**	-		
Care	.505**	.641**	.706**	-	
Hostile Behaviors	-.272**	-.149*	-.325**	-.237**	-

** $p < 0.01$

* $p < 0.05$

Table 2

Bivariate Correlations for Perceived Partner (PP) Sentiments and Behaviors

	PP Satisfaction	PP Commitment	PP Regard	PP Care	PP Hostile Behavior
PP Satisfaction	-				
PP Commitment	.687	-			
PP Regard	.743	.607	-		
PP Care	.621	.646	.632	-	
PP Hostile Behavior	-.373	-.227	-.403	-.272	-

Note. For all correlations, $p < 0.01$.

Table 3

Bivariate Correlations between Attachment Avoidance, Attachment Anxiety, and Social Anhedonia

	Social Anhedonia	Attachment Avoidance	Attachment Anxiety
Social Anhedonia	-		
Attachment Avoidance	.500**	-	
Attachment Anxiety	.133*	.267**	-

** $p < 0.01$

* $p < 0.05$

Table 4

Descriptive Statistics for Study Variables

						Variance Estimates		
	Scale	Min	Max	M	SD	Within Dyad	Between Dyad	ICC
Predictors								
Social Anhedonia	0-40	0	31	10.14	6.29	41.15	-1.56	0
Attachment Anxiety	1-7	1.2	6.7	3.41	0.98	0.80	0.16	0.17
Attachment Avoidance	1-7	1	5.86	3.33	0.98	1.09	-0.13	0
Self Esteem	1-7	1	7	5.30	1.09	0.99	0.20	0.17
Sentiments and Behaviors								
Satisfaction	1-7	1	7	5.80	1.12	0.75	0.52	0.41
Commitment	1-7	2	7	6.00	1.12	0.92	0.34	0.27
Regard	1-7	1.6	7	6.15	0.86	0.49	0.25	0.34
Care	1-7	1	7	5.94	0.88	0.56	0.22	0.28
Hostile Behavior	1-7	1	5.6	2.18	0.94	0.48	0.4	0.45
Perceived Sentiments and Behaviors								
Satisfaction	1-7	1	7	5.81	1.15	0.69	0.65	0.49
Commitment	1-7	1.4	7	5.97	1.17	0.84	0.52	0.38
Regard	1-7	2.2	7	5.91	0.95	0.63	0.26	0.29
Care	1-7	1	7	5.54	1.05	0.91	0.19	0.17
Hostile Behavior	1-7	1	7	2.27	1.26	0.86	0.73	0.46

Table 5

Results of Multilevel Models Examining Predictive Effects of Social Anhedonia on Sentiments and Behaviors Toward Partners

	<i>b</i>	β	<i>t</i>	<i>p</i>
Satisfaction	-0.03	-0.17	-3.13	0.002
Commitment	-0.03	-0.17	-3.07	0.002
Regard	-0.02	-0.17	-3.13	0.002
Care	-0.03	-0.24	-4.24	<0.001
Hostile Behaviors	0.01	0.09	1.53	0.129

Table 6

Results of Multilevel Models Examining Predictive Effects of Social Anhedonia and Attachment Insecurity on Sentiments and Behaviors Toward Partners

	<i>b</i>	β	<i>t</i>	<i>p</i>
Effect on Satisfaction				
Social Anhedonia	-0.02	-0.13	-2.09	0.038
Attachment Avoidance	-0.03	-0.02	-0.37	0.711
Attachment Anxiety	-0.23	-0.20	-3.50	0.001
Effect on Commitment				
Social Anhedonia	-0.02	-0.08	-1.30	0.195
Attachment Avoidance	-0.17	-0.15	-2.28	0.024
Attachment Anxiety	-0.05	-0.05	-0.77	0.450
Effect on Regard				
Social Anhedonia	-0.02	-0.12	-1.95	0.052
Attachment Avoidance	-0.04	-0.05	-0.77	0.445
Attachment Anxiety	-0.19	-0.22	-3.75	<0.001
Effect on Care				
Social Anhedonia	-0.02	-0.17	-2.61	0.010
Attachment Avoidance	-0.09	-0.10	-1.60	0.110
Attachment Anxiety	-0.13	-0.14	-2.39	0.017
Effect on Hostile Behaviors				
Social Anhedonia	0.02	0.11	1.65	0.101
Attachment Avoidance	-0.06	-0.07	-0.98	0.329
Attachment Anxiety	0.16	0.17	2.56	0.011

Table 7

Results of Multilevel Models Examining Predictive Effects of Social Anhedonia on Perceptions of Partners' Sentiments and Behaviors

	<i>b</i>	β	<i>t</i>	<i>p</i>
PP Satisfaction	-0.03	-0.16	-3.06	0.003
PP Commitment	-0.02	-0.08	-1.48	0.141
PP Regard	-0.02	-0.16	-2.92	0.004
PP Care	-1.03	-0.18	-3.07	0.002
PP Hostile Behaviors	0.01	0.05	0.92	0.361

Table 8

Results of Multilevel Models Examining Predictive Effects of Social Anhedonia and Attachment Insecurity on Perceptions of Partners' Sentiments and Behaviors

	<i>b</i>	β	<i>t</i>	<i>p</i>
Effect on PP Satisfaction				
Social Anhedonia	-0.03	-0.18	-3.19	0.002
Attachment Avoidance	0.02	0.02	0.28	0.780
Attachment Anxiety	-0.29	-0.25	-4.78	<0.001
Partner's Actual Satisfaction	0.55	0.53	10.73	<0.001
Effect on PP Commitment				
Social Anhedonia	-0.02	-0.10	-1.75	0.080
Attachment Avoidance	-0.04	-0.04	-0.62	0.535
Attachment Anxiety	-0.28	-0.23	-4.42	<0.001
Partner's Actual Commitment	0.52	0.50	9.72	<0.001
Effect on PP Regard				
Social Anhedonia	-0.02	-0.11	-1.82	0.070
Attachment Avoidance	-0.02	-0.02	-0.29	0.770
Attachment Anxiety	-0.27	-0.28	-5.05	<0.001
Partner's Actual Regard	0.44	0.40	7.46	<0.001
Effect on PP Care				
Social Anhedonia	-0.03	-0.18	-2.81	0.005
Attachment Avoidance	0.08	0.07	1.10	0.272
Attachment Anxiety	-0.28	-0.26	-4.58	<0.001
Partner's Actual Care	0.38	0.32	5.85	<0.001
Effect on PP Hostile Behaviors				
Social Anhedonia	0.02	0.08	1.56	0.122
Attachment Avoidance	0.07	0.05	0.95	0.340
Attachment Anxiety	0.14	0.10	1.99	0.047
Partner's Actual Hostile Behaviors	0.89	0.66	13.46	<0.001

Table 9

Results of Multilevel Models Examining Predictive Effects of Social Anhedonia and Trait Self-Esteem on Sentiments and Behaviors Toward Partners

	β	t	p
Effect on Satisfaction			
Social Anhedonia	-0.14	2.66	0.008
Self Esteem	0.11	1.91	0.057
Effect on Commitment			
Social Anhedonia	-0.17	-2.92	0.004
Self Esteem	0.02	0.27	0.79
Effect on Regard			
Social Anhedonia	-0.15	-2.62	0.009
Self Esteem	0.12	2	0.047
Effect on Care			
Social Anhedonia	-0.22	-3.91	<0.001
Self Esteem	0.06	0.98	0.327
Effect on Hostile Behavior			
Social Anhedonia	0.08	1.28	0.203
Self Esteem	-0.05	-0.77	0.443

Table 10

Results of Multilevel Models Examining Predictive Effects of Social Anhedonia and Trait Self-Esteem on Perceptions of Partners' Sentiments and Behaviors

	β	t	p
Effect on PP Satisfaction			
Social Anhedonia	0.62	-3.34	0.001
Self Esteem	0.16	3.21	0.002
Partner's Actual Satisfaction	0.63	13.6	<0.001
Effect on PP Commitment			
Social Anhedonia	-0.14	-2.59	0.010
Self Esteem	0.09	1.76	0.080
Partner's Actual Commitment	0.58	11.52	<0.001
Effect on PP Regard			
Social Anhedonia	-0.1	-1.79	0.075
Self Esteem	0.22	4.14	<0.001
Partner's Actual Regard	0.48	9.45	<0.001
Effect on PP Care			
Social Anhedonia	-0.14	-2.41	0.017
Self Esteem	0.13	2.41	0.017
Partner's Actual Care	0.4	7.48	<0.001
Effect on PP Hostile Behaviors			
Social Anhedonia	0.1	2.06	0.041
Self Esteem	-0.06	-1.26	0.208
Partner's Actual Hostile Behaviors	0.66	13.31	<0.001

Chapter VI: Figures

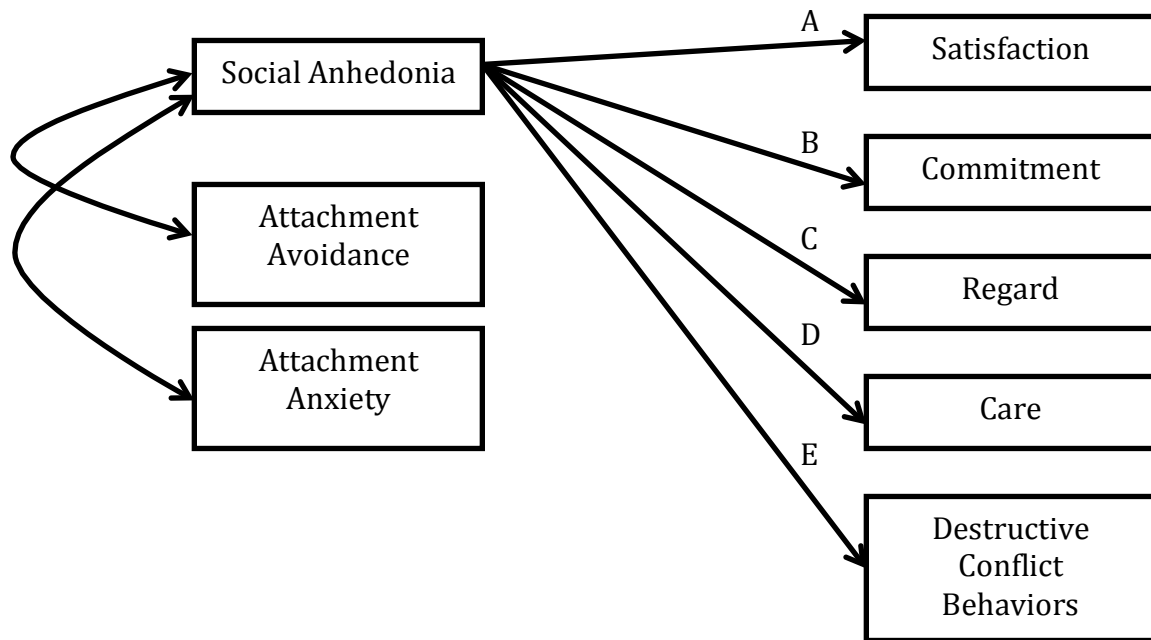


Figure 1. Model of social anhedonia affecting sentiments and behaviors towards the partner.

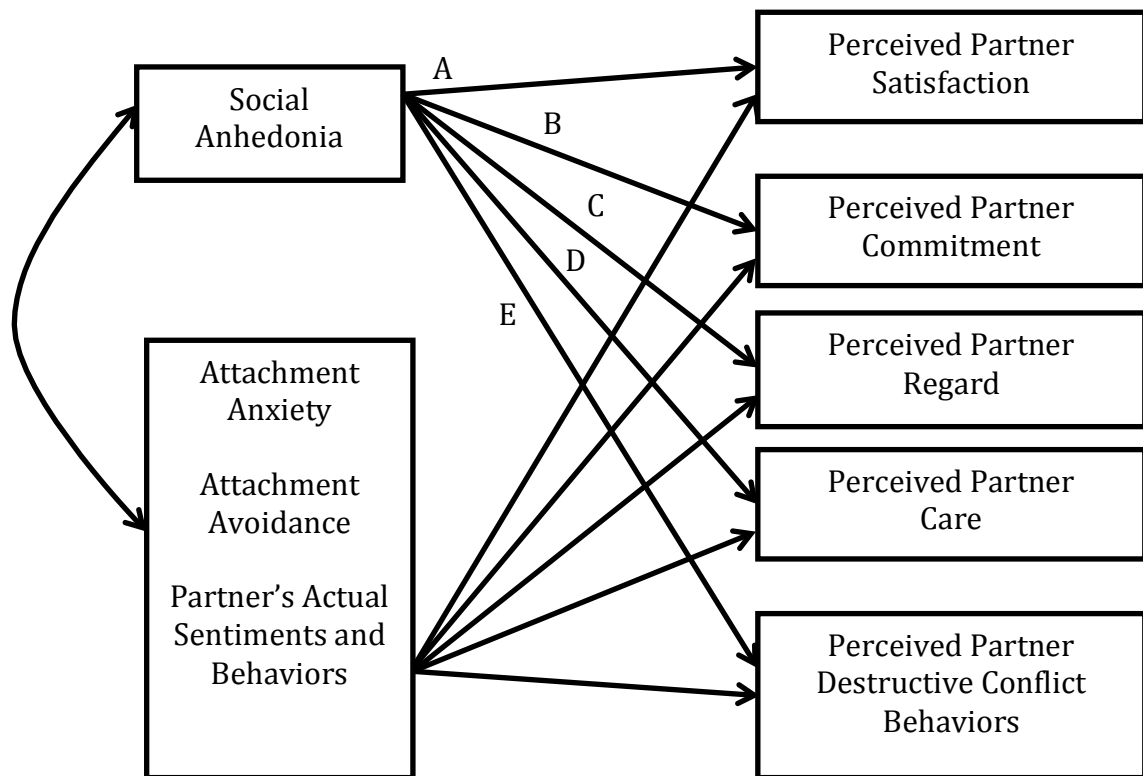


Figure 2. Model of social anhedonia affecting perceptions of partner sentiments and behaviors.

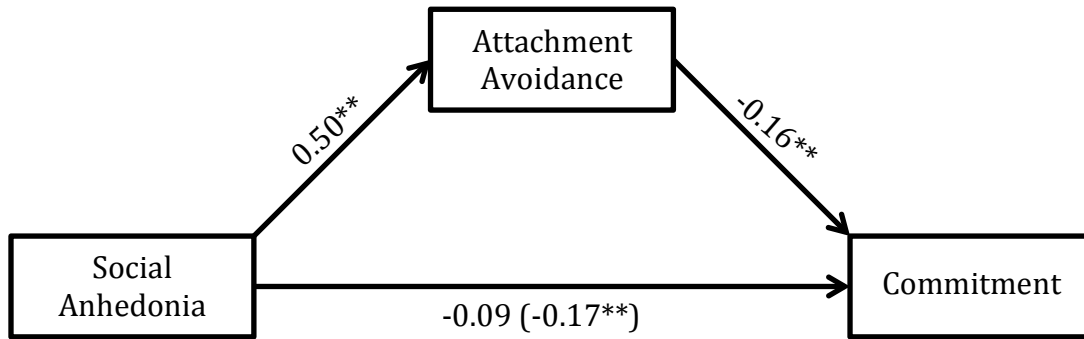


Figure 3. Attachment avoidance mediates the relationship between social anhedonia and commitment.

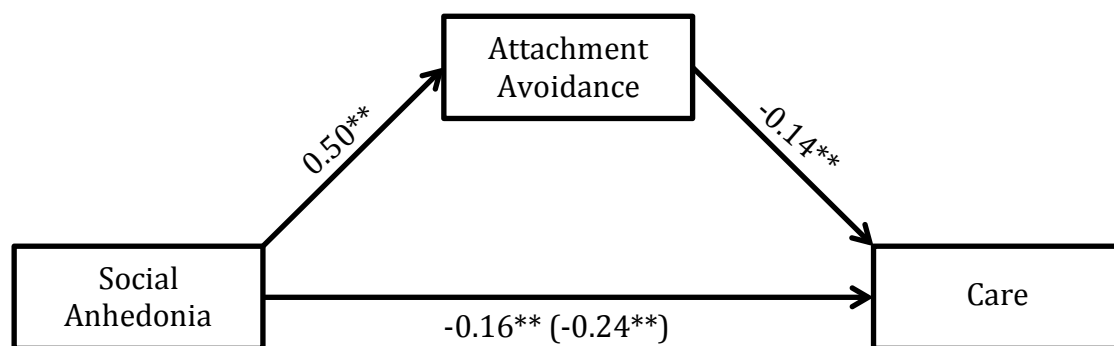


Figure 4. Attachment avoidance partially mediates the relationship between social anhedonia and care.

Chapter VII: Appendices

Appendix A

Satisfaction, Commitment, Regard, and Care

All measures are answered on a 7-point scale (1=strongly disagree; 7=strongly agree).

Satisfaction and commitment are adapted from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998). Care is adapted from a measure of communal strength (Mills et al., 2004). Regard is an adaption of the Rosenberg Self-Esteem Scale, altered to measure esteem for the partner (Rosenberg, 1965).

Satisfaction.

- I feel satisfied with our relationship.
- My relationship is much better than others' relationships.
- My relationship is close to ideal.
- Our relationship makes me very happy.
- Our relationship does a good job of fulfilling my needs for intimacy, companionship, etc...

Commitment.

- I want our relationship to last for a very long time.
- I am committed to maintaining my relationship with my partner.
- I would not feel very upset if our relationship were to end in the near future.
- It is likely that I will date someone other than my partner within the next year.
- I feel very attached to this relationship, very strongly linked to my partner.
- I want our relationship to last forever.

- I am oriented toward the long-term future of this relationship (for example, I imagine having this relationship several years from now).

Positive regard.

- My partner has a number of good qualities.
- I take a positive attitude toward my partner.
- On the whole, I am satisfied with my partner.
- I do not have much respect for my partner.
- At times, my partner is no good at all.

Care.

- Helping my partner is a high priority for me.
- I could easily put my partner's needs out of my thoughts.
- I care for my partner's needs.
- I could easily accept not helping my partner.
- I would sacrifice very much to help my partner.

Appendix B

Perceived Partner Satisfaction, Perceived Partner Commitment, Perceived Partner Regard, and Perceived Partner Care

All measures are answered on a 7-point scale (1=strongly disagree; 7=strongly agree).

These are reworded versions of the own sentiments scales described above.

Perceived partner satisfaction.

- My partner feels satisfied with our relationship.
- Our relationship makes my partner very happy.
- My partner thinks we have a good relationship.
- Our relationship is close to my partner's ideals.

Perceived partner commitment.

- My partner wants our relationship to last for a very long time.
- My partner is committed to maintaining our relationship.
- My partner would not feel very upset if our relationship were to end in the near future.
- My partner feels very attached to our relationship, very strongly linked to me.
- My partner is oriented toward the long-term future of this relationship (for example, my partner imagines having this relationship several years from now).

Perceived partner regard.

- My partner feels that I have a number of good qualities.
- My partner takes a positive attitude toward me.
- On the whole, my partner is satisfied with me.
- My partner does not have much respect for me.

- At times, my partner thinks I am no good at all.

Perceived partner care.

- Helping me is a high priority for my partner.
- My partner could easily put my needs out of his/her thoughts.
- My partner cares for my needs.
- My partner could easily accept not helping me.
- My partner would sacrifice very much to help me.

Appendix C

Adult Attachment Questionnaire (Simpson, 1990)

This scale was validated by Simpson, Rholes, and Phillips (1996). All items were completed on a 7-point scale (1 = strongly disagree; 7 = strongly agree).

Instructions: For each of the following statements, indicate the degree to which you agree or disagree with the statement by using the accompanying scale. Answer according to how you relate to romantic partners in general (rather than one particular partner).

1. I find it relatively easy to get close to others.
2. I'm not very comfortable having to depend on other people.
3. I'm comfortable having others depend on me.
4. I rarely worry about being abandoned by others.
5. I don't like people getting too close to me.
6. I'm somewhat uncomfortable being too close to others.
7. I find it difficult to trust others completely.
8. I'm nervous whenever anyone gets too close to me.
9. Others often want me to be more intimate than I feel comfortable being.
10. Others often are reluctant to get as close as I would like.
11. I often worry that my partners don't really love me.
12. I rarely worry about my partners leaving me.
13. I often want to merge completely with others, and this desire sometimes scares them away.
14. I'm confident others would never hurt me by suddenly ending our relationship.
15. I usually want more closeness and intimacy than others do.

16. The thought of being left by others rarely enters my mind.
17. I'm confident that my partners love me just as much as I love them.

Appendix D

Revised Social Anhedonia Scale (Eckblad, Chapman, Chapman, & Mishlove, 1982)

Instructions: Please indicate whether each of the statements on the following pages is true or false.

1. I feel pleased and gratified as I learn more and more about the emotional life of my friends.
2. I am usually content to just sit alone thinking and daydreaming.
3. When someone close to me is depressed it brings me down also.
4. Although I know I should have affection for certain people I don't really feel it.
5. My relationships with other people never get very intense.
6. I prefer hobbies and leisure activities that do not involve other people.
7. When others try to tell me about their problems and hang-ups I usually listen with interest and attention.
8. Although I enjoy doing things by myself I usually seem to have more fun when I do things with other people.
9. There are things that are more important to me than privacy.
10. Making new friends isn't worth the energy it takes.
11. I never really had close friends in high school.
12. When things are going really good for my close friends it makes me feel good too.
13. I prefer watching television to going out with other people.
14. A car ride is much more enjoyable if someone is with me.
15. I like to make long-distance phone calls to friends and relatives.
16. In many ways I prefer the company of pets to the company of people.

17. When I am alone I often resent people telephoning me or knocking on my door.
18. It made me sad to see all my high school friends go their separate ways when high school was over.
19. Having close friends is not as important as people say.
20. People are usually better off if they stay aloof from emotional involvements with most others.
21. Knowing that I have friends who care about me gives me a sense of security.
22. I sometimes become deeply attached to people I spend a lot of time with.
23. People sometimes think that I am shy when I really just want to be left alone.
24. Just being with friends can make me feel really good.
25. People who try to get to know me better usually give up after a while.
26. I could be happy living all alone in a cabin in the woods or mountains.
27. When I move to a new city I feel a strong need to make new friends.
28. I'm much too independent to really get involved with other people.
29. My emotional responses seem very different from those of other people.
30. When things are bothering me I like to talk to other people about it.
31. There are few things more tiring than to have a long personal discussion with someone.
32. People often expect me to spend more time talking with them than I would like.
33. I don't really feel very close to my friends.
34. If given the choice I would much rather be with others than be alone.
35. I have often found it hard to resist talking to a good friend even when I have other things to do.

36. I find that people too often assume that their daily activities and opinions will be interesting to me.
37. I attach very little importance to having close friends.
38. Playing with children is a real chore.
39. I have always enjoyed looking at photographs of friends.
40. It's fun to sing with other people.

Appendix E

Behavioral Measure

These items were completed using a 7-point scale (1=not at all; 7=very much) by the panel of eight objective coders who watched each conflict-discussion video.

Own hostile behavior during the observed conflict (rated by objective observers).

- How hostile or angry was the participant toward his or her partner?
- How critical or insulting was the participant toward his or her partner?
- To what extent did the participant blame the problem on his or her partner?
- How cold or distant was the participant toward his or her partner?
- How rejecting was the participant toward his or her partner?

Appendix F

Perception of Partner Behavior Measure

After the interaction, participants completed measures of their perceptions of their partner's behavior. The items were identical to the items completed by the coders listed above, but they were reworded to assess perceptions of one's partner. For example: "How hostile or angry was he/she toward you?" The items were answered on the same 7-point response scale (1=not at all; 7=very much).

Perceived partner hostile behavior during the observed conflict (rated by participants).

- How hostile or angry was your partner toward you?
- How critical or insulting was your partner toward you?
- To what extent did your partner blame the problem on you?
- How cold or distant was your partner toward you?
- How rejecting was your partner toward you?

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